## Claims

- 1. A pulse wave propagation detection system comprising electrocardiographic signal detection means, and eyeground image detection means for detecting an eyeground image in synchronization with an electrocardiographic signal detected through the detection means, which system detects pulse wave propagation through an intracerebral blood vessel on the basis of a change in the diameter of an eyeground vein, the diameter being measured by use of an eyeground image synchronized with an arbitrary electrocardiographic signal.
- 2. A pulse wave propagation detection system comprising electrocardiographic signal detection means, and eyeground image detection means for detecting an eyeground image in synchronization with an electrocardiographic signal detected through the detection means, which system detects the state of sclerosis of a capillary artery by detecting pulse wave propagation through the artery on the basis of a change in the diameter of an eyeground vein, the diameter being measured by use of an eyeground image synchronized with an arbitrary electrocardiographic signal.
- 3. A pulse wave propagation detection system according to claim 1 or 2, wherein the change in the eyeground vein diameter is a change in the diameter of an eyeground vein at the optic papilla.
- 4. A pulse wave propagation detection system according to any of claims 1 through 3, wherein the change in the

eyeground vein diameter is the difference between the diameter of an eyeground vein as measured on the basis of an eyeground image synchronized with an R wave, which is an electrocardiographic signal, and the diameter of the eyeground vein as measured on the basis of an eyeground image synchronized with a T wave, which is an electrocardiographic signal.

- 5. A pulse wave propagation detection system according to any of claims 1 through 4, wherein detection of an eyeground image is performed by use of software which can provide an eyeground image synchronized with an electrocardiographic signal by extracting, on a computer display, a stationary eyeground image synchronized with an arbitrary electrocardiographic signal from a motion eyeground image.
- 6. A pulse wave propagation detection system according to claim 5, wherein the software which can provide an eyeground image synchronized with an electrocardiographic signal is software which enables extraction of a stationary eyeground image synchronized with an arbitrary electrocardiographic signal while displaying a motion eyeground image and an electrocardiogram on display means of a computer terminal.
- 7. A pulse wave propagation detection system according to claim 5 or 6, wherein the software includes a program for executing means for calculating a change in the diameter of an eyeground vein on the basis of the eyeground image

synchronized with an arbitrary electrocardiographic signal.

- 8. A pulse wave propagation detection system according to claim 7, wherein the software includes a program for executing means for correlating the change in the eyeground vein diameter with pulse wave propagation through an intracerebral blood vessel, thereby detecting the pulse wave propagation.
- 9. A pulse wave propagation detection system according to claim 7, wherein the software includes a program for executing means for correlating the change in the eyeground vein diameter with sclerosis of a capillary artery, thereby detecting the state of sclerosis of the capillary artery.
- 10. A computer program comprising an algorithm for executing software employed for implementing a pulse wave propagation detection system as recited in any of claims 5 through 8.
- 11. An electronic medium containing software which is executed by means of a computer program as recited in claim 10.